



#6/B
DMT
1-17-02

I. AMENDMENT

IN THE CLAIMS:

Please cancel claims 1-70, without prejudice.

71-96

Please add following new claims ~~79-104~~.

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--79. A method of stimulating growth of melanocyte precursor cells in a human, the method comprising the step of administering to the human, an amount of a human stem cell factor (SCF) polypeptide and optionally a pharmaceutically acceptable carrier.

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The method of claim 79 wherein stem cell factor polypeptide selected is selected from the group consisting of amino acids 1-162, 1-164, and 1-165 as set out in Figure 15C, said polypeptide optionally consisting of an N-terminal methionine.

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The method of claim 79 wherein the stem cell factor polypeptide is selected from the group consisting of amino acids 1-100, 1-110, 1-120, 1-123, 1-127, 1-130, 1-133, 1-137, 1-141, 1-145, 1-148, 1-152, 1-156, 1-157, 1-158, 1-159, 1-160, 1-161, 1-163, 1-166, 1-168, 1-173, 1-178, 2-164, 2-165, 5-164, 11-164, 1-180, 1-183, 1-185, 1-188, 1-189, 1-220, and 1-248 as set out in Figures 42A-C, said polypeptide optionally consisting of an N-terminal methionine.

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The method of claim 79 wherein the stem cell factor polypeptide is selected from the group consisting of amino acids 1-152, 1-157, 1-160, 1-161, and 1-220 as set out in Figure 44A-C, said polypeptide optionally consisting of an N-terminal methionine.

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83. A method of treating a pigmentation disorder in a human, the method comprising the step of administering to the human, a therapeutically effective amount of a stem cell factor (SCF) polypeptide and optionally a pharmaceutically acceptable carrier.

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84. The method of claim 83 wherein the stem cell factor polypeptide is selected from the group consisting of amino acids 1-162, 1-164, and 1-165 as set out in Figure 15C, said polypeptide optionally consisting of an N-terminal methionine.

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85. The method of claim 83 wherein the stem cell factor polypeptide is selected from the group consisting of amino acids 1-100, 1-110, 1-120, 1-123, 1-127, 1-130, 1-133, 1-137, 1-141, 1-145, 1-148, 1-152, 1-156, 1-157, 1-158, 1-159, 1-160, 1-161, 1-163, 1-166, 1-168, 1-173, 1-178, 2-164, 2-165, 5-164, 11-164, 1-180, 1-183, 1-185, 1-188, 1-189, 1-220, and 1-248 as set out in Figures 42A-C, said polypeptide optionally consisting of an N-terminal methionine.

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86. The method of claim 83 wherein the stem cell factor polypeptide is selected from the group consisting of amino acids 1-152, 1-157, 1-160, 1-161, and 1-220 as set out in Figure 44A-C, said polypeptide optionally consisting of an N-terminal methionine.

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87. The method of claim 79 or 83 wherein the stem cell factor is covalently conjugated to a water-soluble polymer.

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88. The method of claim 87 wherein the water-soluble polymer is polyethylene

glycol.

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89. The method of claim 79, or 83 wherein the stem cell factor is co-administered with at least one other cytokine.

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90. The method of claim 87 wherein the stem cell factor is co-administered with at least one other cytokine.

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91. The method of claim 89 wherein one or more cytokines are selected from a group consisting of IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, EPO, G-CSF, M-CSF, GM-CSF, IGF-1, and LIF.

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92. The method of claim 90 wherein one or more cytokines are selected from a group consisting of IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, EPO, G-CSF, M-CSF, GM-CSF, IGF-1, and LIF.

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93. The method of claim 79 wherein the pharmaceutically acceptable carrier is suitable for topical delivery.

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94. The method of claim 79 wherein the pharmaceutically acceptable carrier is suitable for oral delivery.

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95. The method of claim 79 wherein the pharmaceutically acceptable carrier is

suitable for parenteral delivery.

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96. The method of claim 79 wherein the pharmaceutically acceptable carrier is suitable for pulmonary delivery.

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97. The method of claim 79 wherein the pharmaceutically acceptable carrier is suitable for nasal delivery.

*Sub
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98. The method of claim 83 wherein the pharmaceutically acceptable carrier is suitable for topical delivery.

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99. The method of claim 83 wherein the pharmaceutically acceptable carrier is suitable for oral delivery.

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100. The method of claim 83 wherein the pharmaceutically acceptable carrier is suitable for parenteral delivery.

~~93~~
101. The method of claim 83 wherein the pharmaceutically acceptable carrier is suitable for pulmonary delivery.

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102. The method of claim 83 wherein the pharmaceutically acceptable carrier is suitable for nasal delivery.